

APR 10 2008

Appl. No. 10/810,296
Dated April 10, 2008

Reply to Office action of April 5, 2008

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A multiparameter screening Method of evaluating disease risk, disease cause, therapeutic target, and therapeutic efficiency of for atherosclerosis-related coronary heart disease (CHD) or stroke comprising;

defining the disease as atherosclerosis-related CHD or stroke or other cardiovascular disease;

defining the normal as free from said disease;

defining the following parameters as atherosclerotic parameters consisting of c = the Low-density lipoprotein (LDL) concentration parameter in mg/dL or c = the C-reactive protein (CRP) concentration parameter in mg/L, p = the blood systolic pressure parameter in mmHg or p = the blood diastolic pressure parameter in mmHg, f = the heart rate parameter in s^{-1} , a = the radius parameter along arterial

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radius in cm, T = the temperature parameter of blood plasma in $^{\circ}\text{C}$, α = the angle parameter between the gravity and mean velocity of blood fluid in arterial vessels in degree and z = the axial length parameter of diffusion flux along the inner wall in the axial direction of arterial vessels in cm, called the diffusion length parameter;

measuring, for an individual, ~~having the disease,~~
values of said atherosclerotic parameters—~~of~~
presented in the following expressions:

$$J = A c^{\frac{11}{9}} (v^3 D^{16})^{\frac{1}{27}} \left(\frac{g \cos \alpha + fu}{z} \right)^{\frac{2}{9}} \quad (1.1)$$

or

$$J = B c^{\frac{11}{9}} p^{\frac{1}{3}} T^{\frac{16}{27}} a^{\frac{2}{3}} f^{\frac{2}{9}} z^{-\frac{2}{9}} \quad (1.2)$$

and

$$J = E c^{\frac{11}{9}} D^{\frac{16}{27}} z^{-\frac{2}{9}} (\cos \alpha)^{\frac{2}{9}} \quad (1.3)$$

wherein J = the mass transfer flux in 10^{-5} $\text{g}/(\text{cm}^2\text{s})$, A , B and E = the constants of conversion factors, v = the eddy velocity of blood fluid in arterial vessels in cm/s , u = the mean velocity of the blood fluid in cm/s , D = the diffusion coefficient in cm^2/s , and g = the gravitational acceleration in cm/s^2 ;

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measuring, for an individual not having the disease, the normal values of said atherosclerotic parameters;

determining the disease risks yielded by the difference between said measured values and said normal values of said atherosclerotic parameters;

adding all said disease risks containing a total risk of said disease;

determining a disease risk level containing said total risk of said disease;

selecting an atherosclerotic risk factor related to an atherosclerotic parameter ~~that is having~~ the greatest contribution to said total risk of said disease so as to result in said risk factor as a primary therapy target of said disease;

selecting a greater flux between the LDL mass transfer flux and the monocyte mass transfer flux so as to result in said greater flux as a primary cause in said disease;

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selecting a greater concentration level between the LDL level in the serum and the CRP level in the blood plasma so as to result in said greater level as a secondary therapy target of said disease;

~~determining~~calculating a relative ratio between currently said total risk and previously said total risk so as to yield said relative ratio as a therapeutic efficacy of said disease;

repeating above-mentioned-said methods until said disease risk level ~~is reduced~~ to reduce to a normal level for the individual who requires the therapy to prevent or to treat atherosclerosis-related CHD or stroke;

above-mentioned-said methods are written as an executable computer program named the MMA.exe, or another name, to be installed into a general purpose digital computer device to accomplish said methods; and

outputting said total disease risk, said risk level, ~~disease~~said primary cause, said therapeutic target and said therapeutic efficiency ~~to a display or a memory or another~~

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~~computer on a network, or to a user or a display.~~

Claim 2 (Currently amended): A method as in claim 1, wherein the nine disease risks are yielded by the differences between the measured values and the normal values of the nine atherosclerotic parameters, wherein: said method comprising the steps of:

substituting a measured value, $[[c_m]]Cm_1$ in mg/dL, of the individual's LDL concentration in human serum, wherein said Cm_1 is determined using a medical technique for measuring the concentration of blood constituents or said $[[c_m]]Cm_1$ is determined by the physician, into eq. 1.1 yields $Jm_1 = HCm_1^{\frac{11}{9}}$ where

$$H = A(v^3 D^{16})^{\frac{1}{27}} \left(\frac{g \cos \alpha + f u}{z} \right)^{\frac{2}{9}}$$

substituting a normal value, $[[c_n]]Cn_1$ in mg/dL, of said LDL concentration parameter, wherein said Cn_1 is determined by the physician or said $[[c_n]]Cn_1 = 100$ mg/dL for adult, into eq. 1.1 yields $Jn_1 = HCn_1^{\frac{11}{9}}$

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calculating $\left[\left[\frac{J_m - J_n}{J_n} \right] \frac{Jm_1 - Jn_1}{Jn_1} \right]$, where J_m yielded by substituting said c_m into said equation (1.1) and J_n yielded by substituting said c_n into said equation (1.1), yields:

$$\left[\left[R_1 = \left(\frac{c_m}{c_n} \right)^{\frac{11}{9}} - 1 \right] \right] R_1 = \left(\frac{Cm_1}{Cn_1} \right)^{\frac{11}{9}} - 1 \quad (1)$$

where $Cm_1 \geq Cn_1$, and

substituting said C_m and said C_n into (1) where $c_m \geq c_n$ and

calculating (1) yields the disease risk R_1 caused by the LDL concentration parameter related to the atherosclerotic risk factors being an elevated LDL concentration in human serum, high-fat diet, hypercholesterolemia or other risk factors that increase said LDL concentration;

substituting a measured value, $[c_m]Cm_2$ in mg/L, of the individual's CRP concentration in human blood plasma, wherein said Cm_2 is determined using a medical technique for measuring the concentration of blood constituents or said $[c_m]Cm_2$ is determined by the physician, into

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eq. 1.1 yields $J_{m_2} = H C_{m_2}^{\frac{11}{9}}$ where

$$H = A (v^3 D^{16})^{\frac{1}{27}} \left(\frac{g \cos \alpha + f u}{z} \right)^{\frac{2}{9}}$$

substituting a normal value, $[[c_n]]C_{n_2}$ in mg/L, of said CRP concentration parameter, wherein said C_{n_2} and an equivalent factor, F , are is determined by the physician wherein $F = \left(\frac{D_c}{D_L} \right)^{\frac{16}{27}}$, D_c = the CRP diffusion coefficient and D_L = the LDL diffusion coefficient or said $[[c_n]]C_{n_2} = 1.0$ mg/L for adult and said $F = 0.66$, into eq. 1.1 yields $J_{n_2} = H C_{n_2}^{\frac{11}{9}}$,

calculating $\left[\left(\frac{J_m - J_n}{J_n} \right) \right] \frac{J_{m_2} - J_{n_2}}{J_{n_2}}$, where J_m yielded by substituting said c_m into said equation (1.1) and J_n yielded by substituting said c_n into said equation (1.1) yields:

$$\left[\left[R_2 = F \left(\left(\frac{c_m}{c_n} \right)^{\frac{11}{9}} - 1 \right) \right] R_2 = F \left(\left(\frac{C_{m_2}}{C_{n_2}} \right)^{\frac{11}{9}} - 1 \right) \right] \quad (2)$$

where $C_{m_2} \geq C_{n_2}$, the equivalent factor $F = \left(\frac{D_c}{D_L} \right)^{\frac{16}{27}}$

D_c = the CRP diffusion coefficient, D_L = the LDL diffusion coefficient, and

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~~substituting said C_m, said C_n and said F into (2)~~
~~where e_m > e_n and~~

calculating (2) yields the disease risk R₂ caused by the CRP concentration parameter related to the atherosclerotic risk factors being an elevated CRP level in human blood plasma, systemic inflammation, infectious agents or other risk factors that increase said CRP level;

substituting a measured value, [[P_m]]Pm₃ in mmHg, of the individual's blood systolic pressure,
wherein said Pm₃ is determined using a medical technique for measuring the human blood pressure or said [[P_m]]Pm₃ is determined by the physician, into eq. 1.2 yields Jm₃ = H_pPm₃^{1/3} where

$$H_p = Bc^{\frac{11}{9}} T^{\frac{16}{27}} a^{\frac{2}{3}} f^{\frac{2}{9}} z^{\frac{-2}{9}},$$

substituting a normal value, [[P_n]]Pn₃ in mmHg, of said systolic pressure parameter, wherein said Pn₃ is determined by the physician or said [[P_n]]Pn₃ = 120 mmHg for adult, into eq. 1.2 yields Jn₃ = H_pPn₃^{1/3},

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calculating $\left[\left[\frac{J_m - J_n}{J_n} \right] \right] \frac{Jm_3 - Jn_3}{Jn_3}$, where J_m yielded by substituting said P_m into said equation (1.2) and J_n yielded by substituting said P_n into said equation (1.2) yields:

$$\left[\left[R_3 = \left(\frac{P_m}{P_n} \right)^{\frac{1}{3}} - 1 \right] \right] R_3 = \left(\frac{Pm_3}{Pn_3} \right)^{\frac{1}{3}} - 1 \quad (3)$$

where $Pm_3 \geq Pn_3$, and

substituting said P_m and said P_n into (3) where $P_m \geq P_n$ and

calculating (3) yields the disease risk R_3 caused by the systolic pressure parameter related to the atherosclerotic risk factors being an elevated level of blood systolic pressure, family history of hypertension or other risk factors that increase said systolic pressure;

substituting a measured value, $\left[[P_m] \right] Pm_4$ in mmHg, of the individual's blood diastolic pressure, wherein said Pm_4 is determined using a medical technique for measuring the human blood pressure or said $\left[[P_m] \right] Pm_4$ is determined by the physician, into eq. 1.2 yields $Jm_4 = H_p Pm_4^{\frac{1}{3}}$ where

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$$\underline{H_p = B c^{\frac{11}{9}} T^{\frac{16}{27}} a^{\frac{2}{3}} f^{\frac{2}{9}} z^{-\frac{2}{9}}}$$

substituting a normal value, $\underline{[P_n] P_{n4}}$ in mmHg, of said blood diastolic pressure parameter, wherein said P_{n4} is determined by the physician or said $\underline{[P_n] P_{n4}} = 70$ mmHg for adult, into eq.

$$\underline{1.2 \text{ yields } J_{n4} = H_p P_{n4}^{\frac{1}{3}}}$$

calculating $\underline{[\frac{J_m - J_n}{J_n}] \frac{J_{m4} - J_{n4}}{J_{n4}}}$, where J_m yielded by substituting said P_m into said equation (1.2) and J_n yielded by substituting said P_n into said equation (1.2) yields:

$$\underline{[\left(\frac{P_m}{P_n} \right)^{\frac{1}{3}} - 1]} R_4 = \left(\frac{P_{m4}}{P_{n4}} \right)^{\frac{1}{3}} - 1 \quad (4)$$

where $P_{m4} \geq P_{n4}$, and

substituting said P_m and said P_n into (4) where $P_m \geq P_n$ and

calculating (4) yields the disease risk R_4 caused by the diastolic pressure parameter related to the atherosclerotic risk factors being an elevate level of blood diastolic

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pressure, family history of hypertension or other risk factors that increase said diastolic pressure;

substituting a measured value, $[[f_m]]Fm_5$ in s^{-1} , of the individual's heart rate, wherein said Fm_5 is determined using a medical technique for measuring the human heart rate or said $[[f_m]]Fm_5$ is determined by the physician, into eq. 1.2 yields $Jm_5 = H_f Fm_5^{\frac{2}{9}}$ where $H_f = Bc^{\frac{11}{9}} T^{\frac{16}{27}} a^{\frac{2}{3}} p^{\frac{1}{3}} z^{-\frac{2}{9}}$,

substituting a normal value, $[[f_n]]Fn_5$ in s^{-1} , of said heart rate parameter, wherein said Fn_5 is determined by the physician or said $[[f_n]]Fn_5 = 72$ per minute for adult, into eq. 1.2 yields

$$Jn_5 = H_f Fn_5^{\frac{2}{9}}$$

calculating $[[\frac{J_m - J_n}{J_n}]] \frac{Jm_5 - Jn_5}{Jn_5}$, where J_m yielded by substituting said f_m into said equation (1.2) and J_n yielded by substituting said f_n into said equation (1.2) yields:

$$[[R_s = \left(\frac{f_m}{f_n}\right)^{\frac{2}{9}} - 1]] R_s = \left(\frac{Fm_5}{Fn_5}\right)^{\frac{2}{9}} - 1 \quad (5)$$

where $Fm_5 \geq Fn_5$, and

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~~substituting said f_m and said f_n into (5) where $f_m > f_n$ and~~

calculating (5) yields the disease risk R_5 caused by the heart rate parameter related to the atherosclerotic risk factors being an elevated level of heart rate, smoking cigarette, depression or other risk factors that increase said heart rate;

substituting a measured radius value, $[[a_m]]A_{m6}$ in cm, of the individual's arterial vessel at the lesion-prone sites of arterial bifurcations, arterial branching, arterial curvatures or arterial tapering, wherein said A_{m6} is determined using a medical technique for measuring the sizes of arterial vessels or said $[[a_m]]A_{m6}$ is determined by the physician, into eq. 1.2 yields $J_m = H_m A_{m6}^{\frac{2}{3}}$ where $H_m = B c^{\frac{11}{9}} T^{\frac{16}{27}} f^{\frac{2}{9}} p^{\frac{1}{3}} z^{\frac{2}{9}}$,

substituting a normal value, $[[a_n]]A_{n6}$ in cm, of said arterial radius parameter, wherein said A_{n6} is determined by the physician or said $[[a_n]]A_{n6} =$ a value between 0.2 cm and 2.2 cm for adult, into eq. 1.2 yields $J_n = H_n A_{n6}^{\frac{2}{3}}$,

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calculating $[[\frac{J_m - J_n}{J_n}]] \frac{Jm_6 - Jn_6}{Jn_6}$, where J_m yielded by substituting said a_m into said equation (1.2) and J_n yielded by substituting said a_n into said equation (1.2) yields:

$$[[R_6 = \left(\frac{a_m}{a_n}\right)^{\frac{2}{3}} - 1]] R_6 = \left(\frac{Am_6}{An_6}\right)^{\frac{2}{3}} - 1 \quad (6)$$

where $Am_6 \geq An_6$, and

substituting said a_m and said a_n into (6) where $a_m \geq a_n$ and

calculating (6) yields the disease risk R_6 caused by the arterial radius parameter related to the atherosclerotic risk factors being an increased size of arterial radius at said lesion-prone sites or other risk factors that increase the size of said arterial radius;

substituting a measured temperature value, $[[T_m]] T_{m7}$ in °C, of the individual's plasma fluid in the region at said lesion-prone sites, wherein said T_{m7} is determined using a medical technique for measuring the temperature of human blood plasma or said $[[T_m]] T_{m7}$ is determined by the physician, into eq. 1.2

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$$\text{yields } J_{m_7} = H_r T_{m_7}^{\frac{16}{27}} \text{ where } H_r = B c^{\frac{11}{9}} a^{\frac{2}{3}} f^{\frac{2}{9}} p^{\frac{1}{3}} z^{-\frac{2}{9}}$$

substituting a normal value, $[[T_n]]T_{n_7}$ in °C, of said plasma temperature parameter, wherein said T_{n_7} is determined by the physician or said $[[T_n]]T_{n_7} = 37^\circ\text{C}$, into eq. 1.2 yields $J_{n_7} = H_r T_{n_7}^{\frac{16}{27}}$

calculating $[[\frac{J_m - J_n}{J_n}]] \frac{J_{m_7} - J_{n_7}}{J_{n_7}}$, where T_m yielded by substituting said T_m into said equation (1.1) and J_n yielded by substituting said T_n into said equation (1.1) yields:

$$[[R_r = \left(\frac{T_m}{T_n}\right)^{\frac{16}{27}} - 1]] R_r = \left(\frac{T_{m_7}}{T_{n_7}}\right)^{\frac{16}{27}} - 1 \quad (7)$$

where $T_{m_7} \geq T_{n_7}$, and

substituting said T_m and said T_n into (7) where $T_m \geq T_n$ and

calculating (7) yields the disease risk R_r caused by the plasma temperature parameter related to the atherosclerotic risk factors being an elevated temperature of said human blood plasma

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at said lesion-prone sites, elevated body temperature-related diseases or other risk factors that increase said plasma temperature;

substituting a measured value, $[\alpha_m] \alpha_{m_8}$ in degree, of the angle between the gravity and average velocity of the blood fluid in the region at said lesion-prone sites, wherein said α_{m_8} is determined using a medical technique for measuring the human arterial geometries or said $[\alpha_m] \alpha_{m_8}$ is determined by the physician, into eq. 1.3 yields

$$J_m = H_a (\cos \alpha_{m_8})^{\frac{2}{9}} \text{ where } H_a = E c^{\frac{11}{9}} D^{\frac{16}{27}} z^{\frac{2}{9}},$$

substituting a normal value, $[\alpha_n] \alpha_{n_8}$ in degree, of said angle parameter, wherein said α_{n_8} is determined by the physician or said $[\alpha_n] \alpha_{n_8} =$ a value between the 10° and 60° for adult, into eq. 1.3 yields $J_n = H_a (\cos \alpha_{n_8})^{\frac{2}{9}},$

calculating $[\frac{J_m - J_n}{J_n}] \frac{J_{m_8} - J_{n_8}}{J_{n_8}}$, where J_m yielded by substituting said α_m into said equation (1.1) and J_n yielded by substituting said α_n into said equation (1.3) yields:

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$$[[R_s = \left(\frac{\cos \alpha_m}{\cos \alpha_n} \right)^{\frac{2}{9}} - 1]] R_s = \left(\frac{\cos \alpha m_s}{\cos \alpha n_s} \right)^{\frac{2}{9}} - 1 \quad (8)$$

where $\alpha_{n_s} \geq \alpha_m$, and

substituting said α_m and said α_n into (8) where $\alpha_n \geq \alpha_m$ and

calculating (8) yields the disease risk R_s caused by the angle parameter related to the atherosclerotic risk factors being a reduced size of said angle or other risk factors that reduce said angle size; and

substituting a measured value, $[[Z_m]] Z_{m_9}$ in cm, of the individual's axial length of diffusion flux along the inner arterial wall at said lesion-prone sites, wherein said Z_{m_9} is determined using a medical technique for measuring the human arterial geometries or said $[[Z_m]] Z_{m_9}$ is determined by the physician, into

eq. 1.1 yields $J_m = H_z Z_{m_9}^{\frac{2}{9}}$ where

$$H_z = A c^{\frac{11}{9}} (v^3 D^{16})^{\frac{1}{27}} (g \cos \alpha + f u)^{\frac{2}{9}}$$

substituting a normal value, $[[Z_n]] Z_{n_9}$ in cm, of said axial length parameter, wherein said Z_{n_9}

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is determined by the physician or said
 $[[Z_n]]Z_{n_9}$ = a value between 0.10 cm and 1.00 cm,
into eq. 1.1 yields $J_n = H_z Z_n, \frac{2}{9}$,

calculating $[[\frac{J_m - J_n}{J_n}]] \frac{J_{m_9} - J_{n_9}}{J_{n_9}}$, where J_m yielded by
substituting said Z_m into said equation (1.1)
and J_n yielded by substituting said Z_n into
said equation (1.1) yields:

$$[[R_9 = \left(\frac{Z_n}{Z_m}\right)^{\frac{2}{9}} - 1]] R_9 = \left(\frac{Z_{n_9}}{Z_{m_9}}\right)^{\frac{2}{9}} - 1 \quad (9)$$

where $Z_{n_9} \geq Z_{m_9}$, and

substituting said Z_m and said Z_n into (9) where $Z_m \leq Z_n$ and

calculating (9) yields the disease risk R_9 ,
 caused by the axial diffusion length parameter
 related to the atherosclerotic risk factors
 being a decrease in said axial length of the
 diffusion flux or other risk factors that
 decrease said diffusion length.

Claim 3 (previously presented): The method of
 claim 2, further comprising: adding said all nine
 disease risks R_1 to R_9 containing a total risk of said

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disease consisting;

a current total risk of said disease related to the currently measured values of said atherosclerotic parameters; and

a previous total risk of said disease related to the previously measured values of said atherosclerotic parameters.

Claim 4 (previously presented): The method of claim 3, further comprising: determining a disease risk level containing said total risk of said disease comprising:

dividing the disease risk level into the following seven risk sublevels: $0.84 \geq$ first disease risk level ≥ 0.00 , $1.75 \geq$ second disease risk level > 0.84 , $2.70 \geq$ third disease risk level > 1.75 , $3.70 \geq$ fourth disease risk level > 2.70 , $4.70 \geq$ fifth disease risk level > 3.70 , $5.80 \geq$ sixth disease risk level > 4.70 and seventh disease risk level > 5.80 ; and

selecting a disease risk level containing said total risk of said disease from among seven of

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said disease risk sublevels.

Claim 5 (previously presented): The method of claim 3, further comprising: selecting an atherosclerotic risk factor related to the atherosclerotic parameter having the greatest contribution to said total risk of said disease so as to result in said risk factor as a primary therapy target of said disease.

Claim 6 (previously presented): The method of claim 2, further comprising: selecting a greater flux between the LDL mass transfer flux and the monocyte mass transfer flux so as to result in said greater flux as a primary cause in said disease comprising:

selecting the LDL mass transfer flux as a primary cause in said disease when said $R_1 \geq$ said R_2 ;
or

selecting the monocyte mass transfer flux as a primary cause in said disease when said $R_1 <$ said R_2 .

Claim 7 (previously presented): The method of claim 2, further comprising: selecting a greater concentration level between the LDL level in the

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human serum and the CRP level in the human blood plasma so as to result in said greater level as a secondary therapy target comprising:

selecting the LDL level in the serum as a secondary therapy target of said disease when said $R_1 \geq$ said R_2 ; or

selecting the CRP level in the plasma as a secondary therapy target of said disease when said $R_1 <$ said R_2 .

Claim 8 (previously presented): The method of claim 3, further comprising: calculating a relative ratio between said current total risk of said disease and said previous total risk of said disease so as to yield said relative ratio as a therapeutic efficacy of said disease.

Claim 9 (currently amended): The method of claim 1, further comprising: said method containing the steps of:

the step 1 of determining the disease risk R_1 yielded by the difference between the measured value e_m and the normal value e_n of the LDL concentration parameter wherein $e_m \geq e_n$ and

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$R_1 = \left(\frac{c_m}{c_n} \right)^{\frac{11}{9}}$, calculating $R_1 = \left(\frac{Cm_1}{Cn_1} \right)^{\frac{11}{9}} - 1$ yields the disease risk R_1 wherein Cm_1 is a measured value of the individual's LDL concentration in human serum, Cn_1 is a normal value of the LDL concentration parameter and $Cm_1 \geq Cn_1$; determining the disease risk R_2 yielded by the difference between the measured value c_m and the normal value c_n of the CRP concentration parameter wherein $c_m \geq c_n$ and $R_2 = F \left(\left(\frac{c_m}{c_n} \right)^{\frac{11}{9}} - 1 \right)$ where $F = \left(\frac{D_c}{D_L} \right)^{\frac{16}{27}}$, D_c = the CRP diffusion coefficient and D_L = the LDL diffusion coefficient, calculating $R_2 = F \left(\left(\frac{Cm_2}{Cn_2} \right)^{\frac{11}{9}} - 1 \right)$ yields the disease risk R_2 wherein Cm_2 is a measured value of the individual's CRP concentration in human blood plasma, Cn_2 is a normal value of the CRP concentration parameter, $F = \left(\frac{D_c}{D_L} \right)^{\frac{16}{27}}$, D_c = the CRP diffusion coefficient, D_L = the LDL diffusion coefficient and $Cm_2 \geq Cn_2$; determining the disease risk R_3 yielded by the difference between the measured value p_m and the normal value p_n of the blood systolic pressure.

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parameter wherein $p_m \geq p_n$ and $R_3 = \left(\frac{P_m}{P_n}\right)^{\frac{1}{3}} - 1$,

calculating $R_3 = \left(\frac{Pm_3}{Pn_3}\right)^{\frac{1}{3}} - 1$ yields the disease risk

R_3 wherein Pm_3 is a measured value of the individual's blood systolic pressure, Pn_3 is a normal value of the blood systolic pressure parameter and $Pm_3 \geq Pn_3$; determining the disease risk R_4 yielded by the difference between the measured value p_m and the normal value p_n of the blood diastolic pressure parameter wherein

$p_m \geq p_n$ and $R_4 = \left(\frac{P_m}{P_n}\right)^{\frac{1}{3}} - 1$, calculating $R_4 = \left(\frac{Pm_4}{Pn_4}\right)^{\frac{1}{3}} - 1$

yields disease risk R_4 wherein Pm_4 is a measured value of the individual's blood diastolic pressure, Pn_4 is a normal value of the blood diastolic pressure parameter and $Pm_4 \geq Pn_4$; determining the disease risk R_5 yielded by the difference between the measured value f_m and the normal value f_n of the heart rate

parameter wherein $f_m \geq f_n$ and $R_5 = \left(\frac{f_m}{f_n}\right)^{\frac{2}{9}} - 1$,

calculating $R_5 = \left(\frac{Fm_5}{Fn_5}\right)^{\frac{2}{9}} - 1$ yields disease risk R_5

wherein Fm_5 is a measured value of the individual's heart rate, Fn_5 is a normal value

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of the heart rate parameter and $Fm_5 \geq Fn_5$;
determining the disease risk R_6 yielded by the
difference between the measured value a_m and
the normal value a_n of the arterial radius

parameter wherein $a_m \geq a_n$ and $R_6 = \left(\frac{a_m}{a_n}\right)^{\frac{2}{3}} - 1$,

calculating $R_6 = \left(\frac{Am_6}{An_6}\right)^{\frac{2}{3}} - 1$ yields disease risk R_6

wherein Am_6 is a measured radius value of the
individual's arterial vessel at the lesion-
prone sites of arterial bifurcations, arterial
branching, arterial curvatures or arterial
tapering, An_6 is a normal value of said
arterial radius parameter and $Am_6 \geq An_6$;

determining the disease risk R_7 yielded by the
difference between the measured value T_m and
the normal value T_n of the plasma temperature

parameter wherein $T_m \geq T_n$ and $R_7 = \left(\frac{T_m}{T_n}\right)^{\frac{16}{27}} - 1$,

calculating $R_7 = \left(\frac{Tm_7}{Tn_7}\right)^{\frac{16}{27}} - 1$ yields disease risk R_7

wherein Tm_7 is a measured temperature value of
the individual's plasma fluid in the region at
said lesion-prone sites, Tn_7 is a normal value
of said plasma temperature parameter and $Tm_7 \geq$
 Tn_7 ; determining the disease risk R_8 yielded by

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~~the difference between the measured value α_m and the normal value α_n of the angle parameter~~

~~wherein $\alpha_n \geq \alpha_m$ and $R_8 = \left(\frac{\cos \alpha_m}{\cos \alpha_n} \right)^{\frac{2}{9}} - 1$; calculating~~

$R_8 = \left(\frac{\cos \alpha_{m_8}}{\cos \alpha_{n_8}} \right)^{\frac{2}{9}} - 1$ yields disease risk R_8 wherein

α_{m_8} is a measured value of the angle between the gravity and average velocity of the blood fluid in the region at said lesion-prone sites, α_{n_8} is a normal value of the angle parameter and $\alpha_{n_8} \geq \alpha_{m_8}$; and determining the disease risk R_9 yielded by the difference between the measured value z_m and the normal value z_n of the diffusion length parameter wherein $z_n \geq z_m$

and $R_9 = \left(\frac{z_n}{z_m} \right)^{\frac{2}{9}} - 1$; calculating $R_9 = \left(\frac{Z_{n_9}}{Z_{m_9}} \right)^{\frac{2}{9}} - 1$ yields

disease risk R_9 wherein Z_{m_9} is a measured value of the individual's axial length of diffusion flux along the inner arterial wall at said lesion-prone sites, Z_{n_9} is a normal value of said axial diffusion length parameter and $Z_{n_9} \geq Z_{m_9}$;

the step 2 of adding all nine disease risks R_1 to R_9 in the step 1 containing a total risk of said disease consisting of a current total risk

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of said disease related to the currently measured values of the atherosclerotic parameters and a previous total risk of said disease related to the previously measured values of the atherosclerotic parameters;

the step 3 of selecting a disease risk level containing said total risk of said disease in the step 2 from following among seven of the disease risk sublevels: $0.84 \geq$ first disease risk level ≥ 0.00 , $1.75 \geq$ second disease risk level > 0.84 ; $2.70 \geq$ third disease risk level > 1.75 , $3.70 \geq$ fourth disease risk level > 2.70 , $4.70 \geq$ fifth disease risk level > 3.70 , $5.80 \geq$ sixth disease risk level > 4.70 and seventh disease risk level > 5.80 ;

the step 4 of selecting an atherosclerotic risk factor related to an atherosclerotic parameter having the greatest contribution to said total risk of said disease in the step 2 so as to result in said risk factor as a primary therapy target of said disease;

the step 5 of selecting the LDL mass transfer flux as a primary cause in said disease when

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said R_1 in the step 1 \geq said R_2 in the step 1 or selecting the monocyte mass transfer flux as a primary cause in said disease when said $R_1 <$ said R_2 ;

the step 6 of selecting the LDL level in human serum as a secondary therapy target of said disease when said R_1 in the step 1 \geq said R_2 in the step 1 or selecting the CRP level in human blood plasma as a secondary therapy target of said disease when said $R_1 <$ said R_2 ; and

the step 7 of calculating a relative ratio between said current total risk of said disease in the step 2 and said previous total risk of said disease in the step 2 so as to yield said relative ratio as a therapeutic efficacy of said disease; and

wherein the step 1 through the step 7 are written as an executable computer program named the MMA.exe, or another name, to be installed into a general purpose digital computer device to accomplish said method and to output a result of said method to a display or ~~a memory or another computer on a network, or to a user comprising:~~

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starting the MMA.exe program on said device;

inputting the currently measured values, the previously measured values and the normal values of the individual's atherosclerosis parameters into the input screen of said MMA.exe by using the keyboard of said device;

clicking the "update" button and the "calc. risk" button of said input screen;

clicking the "evaluate" button of the MMA.exe output screen; and

outputting said output screen to a display or ~~a memory or another computer on a network, or to a user by using said computer device so as to produce a result of said method, called the screening report containing a total risk of said disease, a disease-risk level, a primary cause in said disease, a primary therapy target of said disease, a secondary therapy target of said disease and a therapeutic efficiency, to the individual who requires the diagnosis, the prevention or the treatment of the therapy to prevent or to treat atherosclerosis-related CHD or stroke or other cardiovascular disease.~~

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Claim 10 (previously presented): The method of claim 9, further comprising: repeating said method accomplished by using said device until the individual's disease risk level is reduced to a normal level for the individual who requires the therapy to prevent or to treat atherosclerosis-related CHD or stroke ~~or other cardiovascular disease.~~